GRUMMAN plane news

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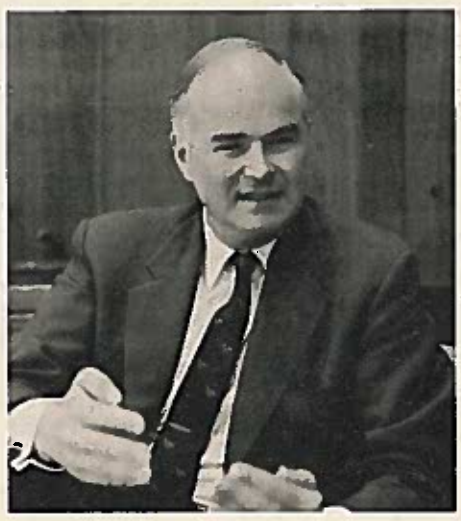
Bierwirth elected President of Grumman Corp.; Spielman, Loar get top posts at Grumman Allied

Clint Towl, Board Chairman and Chief Executive Officer of Grumman Corporation, announced November 22 that John C. Bierwirth Jr. had been elected to the presidency of Grumman Corporation. Towl had held that office in addition to his board chairmanship since the death of Lew Evans, former Grumman Corporation President, in July of 1972.

Towl, who had also been Board Chairman of Grumman Allied Industries, Inc., a subsidiary of Grumman Corporation, announced the day previously that he was stepping down from that post and would be succeeded by Wallace B. Spielman. Robert F. Loar was elected President and Treasurer of Grumman Allied succeeding Spielman in those positions. So Towl, who helped set the tone of Grumman Allied when it was formed in 1962 by broadening its scope to include the design, fabrication, and marketing of commercial non-aeronautical products, will continue active in the firm as one of its Directors.

Elected as Vice Presidents of Grumman Allied were Wells A. Darling, Robert J. Farren, and Robert W. Somerville.



Jack Bierwirth

Wally Spielman

Bob Loar

Financial specialist

Jack Bierwirth, who came to Grumman Corporation as Vice President-Finance in July 1972, has been a Director of the parent Corporation since 1971. During World War II, Bierwirth served as a lieutenant aboard a destroyer-escort, returned to Yale University and received a B.A. in history in 1947, then went on to Columbia Law School to earn an L.L.B. in 1950.

Following graduation he joined the law firm of White and Case as an associate lawyer, three years later became an assistant vice president of New York Trust Company (now Chemical Bank), and, in 1957, became associated with National Distillers and Chemical Corporation as assistant treasurer.

A year later, Bierwirth was elected a vice president of National Distillers. In 1963, when the corporation formed its international division, he was appointed general manager of the new venture. Bierwirth was elected a director of National Distillers in 1966 and an executive vice president in 1969.

Jack Bierwirth first became associated with Grumman Corporation in February 1971 when he became a member of the Board of Directors.

During his association with Grumman Bierwirth has had these responsibilities: commercial banking relations; investment banking relations; insurance; capital expense and profitability budgets; mergers and acquisitions; long term planning; Treasurer/Controller departments of the parent corporation and all subsidiary companies, including tax and internal auditing departments; liaison work with non-aerospace subsidiaries.

Bierwirth is also a Director of Grumman Aerospace, Grumman Allied, Grumman Data Systems, Grumman Ecosystems, and Montauk Aero Corporation.

Wide marketing experience

Wally Spielman, who is Board Chairman of Olson Bodies Inc., and J.B.E. Olson Corporation in addition to his Grumman Allied post, studied automotive engineering at Long Island University and Columbia during the depression years. He's been primarily involved in marketing since that time and has a long list of accomplishments to prove his success at it.

He served in the U.S. Army for more than three years and was engaged in the Normandy invasion and in the campaigns of northern France and the Rhineland. Following service, Spielman was elected an officer in a series of small companies that later formed a major subsidiary of Grumman Corporation.

In '47, he was elected Treasurer of J.B.E. Olson Corporation; in 1948, he was elected Executive Vice President, and, in 1950, President and a Director of that corporation. Spielman was named President of J.B.E. Olson Export Corporation and of Olson Leasing Corporation in 1954—these two enterprises were among several companies that became divisions of Grumman Allied Industries, Inc., in 1963.

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How's Tomcat doing? . . . It's proving better and better in flight

It was more than five years ago that the Navy, Grumman and other aircraft manufacturers began to think about an air superiority fighter for the Fleet. The Company won that competition and, since then, has built and has been flight-testing the new plane, the Tomcat. So perhaps it's time not only to think about Tomcat's performance thus far but also to think again about why the Navy needed the aircraft in the first place.

Granted, there were some people during those years gone by who believed that there was no need for an air superiority fighter. They reasoned that with the dawn of the supersonic era the days of the dogfights were gone. But they weren't, as argued by Joe Rees, deputy Program director, and Arnold Whitaker, Systems Technology, in the October 1968 issue of Science and Technology.

The two men pointed out dogfights were still very much part of the aircraft scene as the Vietnam conflict flared. They wrote:

"Enemy pilots assisted by good ground-based radar, were able to counter the F-4 from the rear and engage it in close-in battle where its missiles were useless. The F-4 pilot could have thrown rocks at the MIG, but he didn't have the right guns or missiles to shoot it down."

Soviet development program

The MIG in question was MIG-21, which was developed at about the same time as the F-4; and that was during the Korean Police Action. Since that time, however, the U. S. S. R. has developed and produced several new aircraft, including Foxbat, Fishbed, Flagon A, and so on. In fact, the Soviets have turned out new aircraft types on the average of one every other year. Put in simple (and stark) terms, the Americans flying the F-4 fought against the Soviet's second-line fighters. It can even be argued that in terms of the air-superiority mission —and the Fleet-defense role as well— the Navy was employing aircraft that were 10 to 15 years out of date.

It was this "fighter gap" that caused the Navy grave concern. Something new had to be added, and that was the F-14, which later took on the name Tomcat.

Since Grumman and the Navy were acutely aware of the gap, and that no one aircraft can do all flight missions, the problem became one of designing a plane that would excel in dogfights and protect the Fleet by loitering perhaps 150 miles away. In addition, the plane had to have agility—that is, just the right trade-off between maximum acceleration and maximum maneuverability—which was the primary reason for designing a continuous variable-sweep (swing-wing) plane. And add one other requirement: a balanced weapons system that includes highly sophisticated electronics.

Automated telemetry

In a sense, Grumman had a leg up because of its work on the F-111 and its planning and innovations. It was working to develop an ATS (Automated

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F-14 proving better and better in test

(Continued from page 1)

Telemetry Station) that would enable flight crews and ground personnel to read out flight data in real-time. (In the "old days," a pilot would fly his points with a one-hour tape recorder, land, and wait a couple of days for the evaluation. With the ATS, pilots could fly for hours, land for a same-day debriefing, and even fly again that day.) With an in-flight refueling capability, the restraints on the length of a test flight were largely just two things: weather and pilot fatigue.

Then, too, because of the Company's advances in the state of the art (such as the use of boron-epoxy, a strong and light material), and the use of titanium, another weight-saver), Tomcat design was greatly enhanced. And coming down the pike at about the same time frame were two non-Grumman developments that tied in beautifully with Tomcat plans: progress of the TF-30 engine by Pratt & Whitney and development of the AWG-9 missile system by Hughes Aircrafft.

Rapid development

It was a setback, of course, when the first Tomcat crashed during its second flight. It made the highly compressed schedule of first flight to BIS (Board of Inspection and Survey) trials even tighter—but it was done in two years, which was faster than previous programs, such as the A-6 and E-2. Though the plane remains behind the original schedule, of the seven major aircraft weapon systems developed over the past 20 years only one has progressed as rapidly through development as the F-14, and that was a much less complex day fighter. There are additional pluses that warrant attention:

- NPE II East and West added up to 72 flights and 178 flight hours, which, with NPE I at Calverton, means that the Navy has more flight time logged in than ever before on a Navy program
- Two Navy pilots conducted flight tests aboard an aircraft carrier (the USS Forrestal) about six months earlier than ever before
- The commissioning of two Tomcat squadrons—VF-1 and VF-2—occurred in October at the Naval Air Station, Miramar.
- A Tomcat is currently going through carrier suitability trials at Patuxent Naval Air Test Center
- Tomcat No. 9 successfully fired Phoenix missiles at live targets, and No. 2 has been equally successful in firing the 61-M gun at all critical combinations of altitudes and speed during flights at Calverton

Performance: 'Well done'

Perhaps of singular significance are reactions from the customer. There was an old ad—"Ask the man who owns one"—that, with a twist from "owns" to "flies," tells the story. For example, Capt. Clyde Tuomela, deputy Program manager of F-14 Test and Evaluation for the U. S. Navy, has remarked:

"It is rare when anyone in the testing community passes out a 'well done' on good performance," and he went on to document why praise was deserved: "In a 16-day period (at Point Mugu), the Grumman test airplanes flew 49.6 hours, and in 17 days the Hughes airplanes flew 51.1 hours. At this stage of the development, it is most impressive to have airplanes flying such hours with full weapon systems in operation. The culmination, or proof, of this full weapon systems capability was dramatically demonstrated with a multi-missile launch at multiple targets. This fact alone should give all concerned a great feeling of satisfaction. In a simple term, it has never been done before. It is this overall feeling of achievement that should be felt by everyone who has contributed to the NPE."

And Cdr. Bruce Ashley of NATC Service Test, Patuxent River, called NPE II "A significant improvement in airframe and engine combination over NPE I. A particularly outstanding effort by all Grumman personnel."

From the top, from Adm. Elmo Zumwalt, Chief of Naval Operations, came the judgment, "At this point, the F-14 test and evaluation program far exceeds past fighter developments."

Words of praise have also come from Navy pilots who've flown Tomcat. Then, too, the Program people at Grumman have a full appreciation of how things are going. In general, it's their view that no aircraft—especially none of such complexity—has moved down the flight test ramp so rapidly. There's every evidence that the Tomcat is what it was designed to be: the world's foremost air superiority fighter.

Tribute to Roy

For the imaginative, clean beauty of the art work in the story about Leroy Randle Grumman's induction into the Aviation Hall of Fame, Plane News is indebted to two men in Presentations Services. Craig Kavafes did the charcoal sketch of Roy Grumman, and Guy Styles did the remaining pen and ink sketches and the layout.

We'd like to thank them (in the Navy way) for "a job well done."

Apollo gets fiery sendoff after 'glitch' delays start

Thirty seconds before launch there was an automatic cutoff. The computer-rich Apollo 17 was immobilized.

After a check, the difficulty was determined: a signal indicated that the S-IVB Saturn third stage was not pressurized. It was . . . but it took 2½ hours to verify it, and the Marshall Space Flight Center at Huntsville, Alabama, simulated a fix to be certain that the launch could proceed safely.

The Saturn soon came back to life, and at 12:33 a.m. Thursday, December 7, there was a thunderous roar—and gasps as the sky at Cape Kennedy lighted up with a brilliance like that of the sun—and the flaming poliwog tail of light climbed skyward . . . and then moved out of sight. The trio of space explorers was on its way, and, as Plane News went to press, the mission seemed on the mark.

Because this is the last mission in the Apollo series does not mean it's the least in significance. Indeed, far from it. It may become the most important (if one discounts Apollo 11, which proved that Man possessed the technological capacity to reach the moon and return to earth safely), on the grounds that (1) the astronauts are to have more time to study the lunar surface than was the case before; (2) for the first time, a geologist has an opportunity to evaluate the moon's surface materials; and (3) the landing site—a narrow valley pinched between two mountain ranges — could yield information as to the nature of the "black stuff" that seems to have slid down from the mountainside. This could be a paradise of sorts for geologist-astronaut Jack Schmitt.

So for Schmitt and Spacecraft Commander Gene Cernan, the man leading Apollo 17 LM-12, this promises to be an exciting mission. Further, Cernan, Schmitt, and Command Module Pilot Ron Evans who'll be orbiting the moon, have to be aware that this may be "one last chance" for this kind of exploration. In any event, it will end an era; and in all probability, it will be 10 years or more before any similar venture is undertaken. They are, therefore, under pressure to learn the maximum within a severely restricted time frame.

Professional views. Sen. Barry Goldwater of Arizona, a General in the Air Force Reserve and staunch believer in a strong national defense posture, talks with Grumman Test Pilot Don Evans before flying in the back seat of a Tomcat. (Photo by Dick Sander)

Name Darling, Farren, Somerville VPs at Grumman Allied

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Spielman was also elected President and a Director of Olson Bodies, Inc., when that company was formed as a subsidiary of Grumman Allied Industries in 1967, the same year he was elected President and a Director of Grumman Allied Industries, Inc.

Operations head

Bob Loar came to Grumman in 1942 from Wall Street. He started as an internal auditor, and over the next 20 years served as head of Inventory Control, the production stockrooms and warehouses, and supervisor of materials before being shifted in 1962 to Grumman Aerobilt Bodies (later Olson Bodies) in Athens, N. Y., as general manager.

Loar continued to manage Aerobilt Bodies when Grumman Allied was formed in 1962, but he was also named Vice President and a Director of Grumman Allied. He returned to corporate headquarters in Garden City in 1964, and in 1965 was elected a Senior Vice President of the firm. In February of this year, Bob Loar was elected Executive Vice President of Grumman Allied.

Motorhome manager

Wells Darling, who has been associated with Grumman Allied since '64, graduated from Princeton with a degree in Economics. He joined American Bosch Arma in 1950, became an accounting supervisor before leaving in 1956 for Reeves Instrument Corporation where he served as assistant controller and industrial relations director.

After joining Grumman Allied in 1964, he served in a variety of posts—including staff to Bob Loar and systems analyst and inventory control specialist at several of the truck body plants—until he was named assistant plant manager of Pearson Yacht Division in 1965. Two years later he became director of New Product Development for Grumman Allied, and in June of this year, Darling was named Product Manager for Grumman Motorhomes. He will continue serving in that capacity as Vice President.

Helped Allied 'grow'

Bob Farren joined the Grumman organization more than 19 years ago as the first civil engineer in the then fledgling Plant Engineering Department—and one of his first assignments was to help with the construction of a new truck body plant at Athens, N. Y., for Aerobilt Bodies, the forerunner of Olson Bodies. He has since participated in the design and activation of all of the Grumman Allied plants and holds professional engineering licenses in each of the seven states where the plants are situated.

Farren spent 14 years as Civil Engineering section chief in the Facilities Department and one year as assistant manager of Facilities Planning before moving to Grumman Allied four years ago. Initially he directed Allied's plant expansion program; later he became general manager of Allied's Wormuth Brothers Foundry and then general manager of Grumman Modular Buildings. As Vice President, he continues to function in all three capacities.

Bob graduated from the City College of New York in 1948 with a degree in Civil Engineering, joined Ford, Bacon and Davis, a consultant firm. During the next six years he specialized in power plants and chemical industries projects.

Heads Montgomery plant

Bob Somerville, who's on temporary assignment as general manager of Grumman Allied's Montgomery, Pa., plant, holds a Bachelor's and Master's in Industrial Engineering from New York University. Earlier, Somerville served four years in the Air Force as a crew chief on jet aircraft.

Wells Darling

Bob Farren

He joined Grumman in 1957, initially in Manufacturing Engineering - Tooling & Methods, and in 1959, he became associated with Test Equipment & Process Engineering. From June 1963 until June 1970 he became involved in the Product Support Department (he was named deputy director in late '65), and served as President of Grumman Pacific Pte. Ltd. from June '70 until March '71.

After a short stint on special assignment to the F-14 "should cost" team, Bob joined Grumman Allied and was assigned to Bob Loar's staff. Somerville headed the move of the Grumman Motorhomes production from Portsmouth (Pearson Yachts) to Montgomery, Pa., earlier this year.

Bob Somerville

Calling it a career

. . . At least at Grumman, is Margaret C. Imrie, better known for the past 20 years here as Claire. We're gonna miss her. And with good reason.

Anyone who has ever had the pleasure of working with Claire on a story knows that she is easy to get along with, concerned (at times, overly, her editor might tell you) with getting the exact terminology of a technical explanation, a lady who never seems to miss a day, a bear for work, a printer's terror 'cause she picks up all those typos and wrong fonts—well, the list can go on and on.

We're going to miss her for all those things. But most of all, we on the Plane News staff, and all her many friends at Grumman, are going to miss Claire because she is a fine lady and we love her.

She may be calling it a career at Grumman, but Claire intends to continue her work at the A. Holly Patterson Home in Uniondale, and it wouldn't be at all surprising if after the first issue in January 1973 we got a phone call to point out a couple of places where we had slipped. Her last day is Friday, December 15, so if you happen to see her before that time, say "hello," and wish her the best —she deserves it.

Watch that holiday spirit

"My name is Lou Frank. I am Commissioner of Police for Nassau County.

"For the past 26 years I have been a cop . . . I've pulled a few broken bodies out of wrecked cars, had the unhappy job of ringing a doorbell and telling a shocked and stricken face that the one they loved would not be home again. None of my men, and I have 3,500, want to do that. Certainly, they don't want to do it for you.

"Well—what's the message?

"This holiday season, don't mix alcohol and driving . . .

"So far in 1972 our drunk-driving arrests are up 60 percent. If you drink and drive this holiday season, you could get lucky and we'll pick you up for drunk driving (you'll spend the night in detention and probably lose your license)—or—you could get unlucky and we'll tell your family you won't be home for the holiday—or—forever.

"Take the advice of a friend—don't mix alcohol and gasoline."

They're helping kids

A free-wheeling dream will come true for the youngsters at Saint Christopher's Orphanage in Sea Cliff again this year. Supply Operations, a division of Product Support, started early in November to round up new and used bikes and trikes, and Santa Claus (Dick Erdody) is going to have the fun of presenting about 25 of these. Santa's helpers include John Burkhardt and John Hoffmann from the Paint Shop and many kind people from all around Grumman who have contributed their time and toys. Co-chairmen were Phil DuHamel and Paul Opitz, both of Plant 30, and coordinators included Ed Kirkland, George Lursen, Gary Lohr, Paul DiBenedetto, and Jim D'Aries. Thank Henry Pappas, Dave Canini, and Jean Jagoe for art work, and Hicksville Bike Shop, which was responsible for repairing many of the bikes and trikes.

No let-up for space team in bid for Shuttle work

The reverberations of Space Shuttle Proposals being hammered out can be sensed all around Grumman Aerospace these days. Four Requests for Proposal have been received from North American Rockwell, the prime contractor for NASA's Space Shuttle Orbiter. Grumman is attacking the economics and paperwork with all of its resources in anticipation of the major subcontracting NR will require for NASA's Space Shuttle.

"Until the end of March, there will be a constant succession of proposals going through the Space side of the house," Vice President Tom Kelly, director of Space Programs, said last week. His tone of voice and infectious smile denote confidence in the engineering, manufacturing, and manufacturing engineering, and all the pricing and planning experts associated in the Grumman thrust for Orbiter design and manufacture.

"We have been doing technical work on the Shuttle all along," Kelly continued. "Now we are in the midde of preparing the proposals themselves. On November 3 North American Rockwell released three RFPs: on the Vertical Tail Sub-System, the Orbiter Wing, and the Mid-Fuselage. Another RFP, for the Orbital Maneuvering System (OMS), was received November 29.

The three structural RFPs all call for straightforward aircraft type construction, for which our experience is well suited. The OMS is a rocket propulsion system, using storeable propellants, very similar to the LM propulsion system."

Another bid

Another RFP has come from NASA's Manned Space Flight Center in Huntsville, Ala., for a $750,000 Phase B study of a Storeable Propellants System for the Space Tug, the study haeded by Bob Watson and Gray Smith. The completed proposal is due at MSFC December 22.

The Space Tug is an unmanned propulsion system that will be carried in the Orbiter. Once circling the earth, the Orbiter will release the Tug, which will then carry the Shuttle payload into higher earth orbits, up to 22,400 miles out in space.

"As with all our proposals, LOW COST is the very essential element," Kelly emphasized.

"Looking to next year," he continued, "we expect a Request for Proposal from NASA for a Phase B study on the LST (Large Space Telescope) in mid-February. That's the one Pete Simmons and a small group have been working on under a pre-Phase B study the past several months. Right after the first of the year, we'll be substantially increasing the size of this group for the pre-proposal effort. They'll have about six weeks after the RFP comes in to complete the proposal, and this, too, will be on a tight budget. Everything is competitive, and we can't forget that our competition wants the work as much as we do. Four or five companies are bidding, all with excellent credentials and experience.

The costing and pricing effort for each Shuttle subcontract is being led by what Kelly calls a "tiger team" from Central Pricing, headed by John Cecutti. A network of experienced estimators and specialists all over the Company channel information to him to document Grumman's facilities, manpower, and subcontracting resources, tooling, applicable experience in aircraft/spacecraft, and other considerations in support of the proposals being prepared.

"Our responsibility," says Cecutti, "is to prepare a complete cost presentation for NR in words that make clear the data being presented. Of course we have to show Management that the approach is realistic and achievable. It's work which relates very strongly to what we have done in the past—our cost confidence will be high."

Sighting on Intruder. During modification review of Intruder at Calverton a couple of weeks ago, this rear-beam closure fitting drew inspection of this high-powered crew: Jack Hughes, Grumman A-6 mod manager; Capt. Joe Wilkinson, Navy A-6 Project manager; Capt. W. Ralston, Commander Fleet Air-Whidbey Operations Officer; Fred Boos, Navy A-6 Deputy Project manager; Cdr. Herb Hope, A-6 CNO coordinator; and Bill Trillo, A-6 Program director.

OAO goes on, and on, and on

Thursday, December 7, was the fourth anniversary of the launch of Orbiting Astronomical Observatory OAO-2. The 4400-pound spacecraft was flung into space in the early morning hours of December 7, 1968. Although its design life was set at one year, it is still operating today, circling the earth every 100 minutes and sending back great volumes of data for the University of Wisconsin experiment. Thus far, the spacecraft has traveled 593,709,688 miles in 21,064 orbits.

OAO-2 carries two separate telescope experiments, looking out opposite ends of the spacecraft. The experiments can look in practically any direction in the universe, but their primary function is to gather information on selected stars and galactic phenomena. OAO is controlled by engineers and technicians on the ground who literally "fly" the spacecraft 24 hours a day.

Among OAO's most significant contributions to date are the discovery that young hot stars are losing more of their matter than previously suspected—as much as the mass of the earth in a single year. OAO also recently captured in detail a view of a super-nova, considered one of the rarest and most violent of celestial events. This phenomenon, occurring only once in several hundred years with enough brightness to be clearly seen from earth, is the last stage of stellar evolution—the explosion of a star before its death.

'Guest' astronomers

Having completed all of its primary objectives, OAO-2 is now providing an ultraviolet stellar map for a variety of astronomical research projects. It is also being used by "guest" astronomers from around the world. Scientists have described OAO as "possibly the most important astronomical tool since the invention of the telescope."

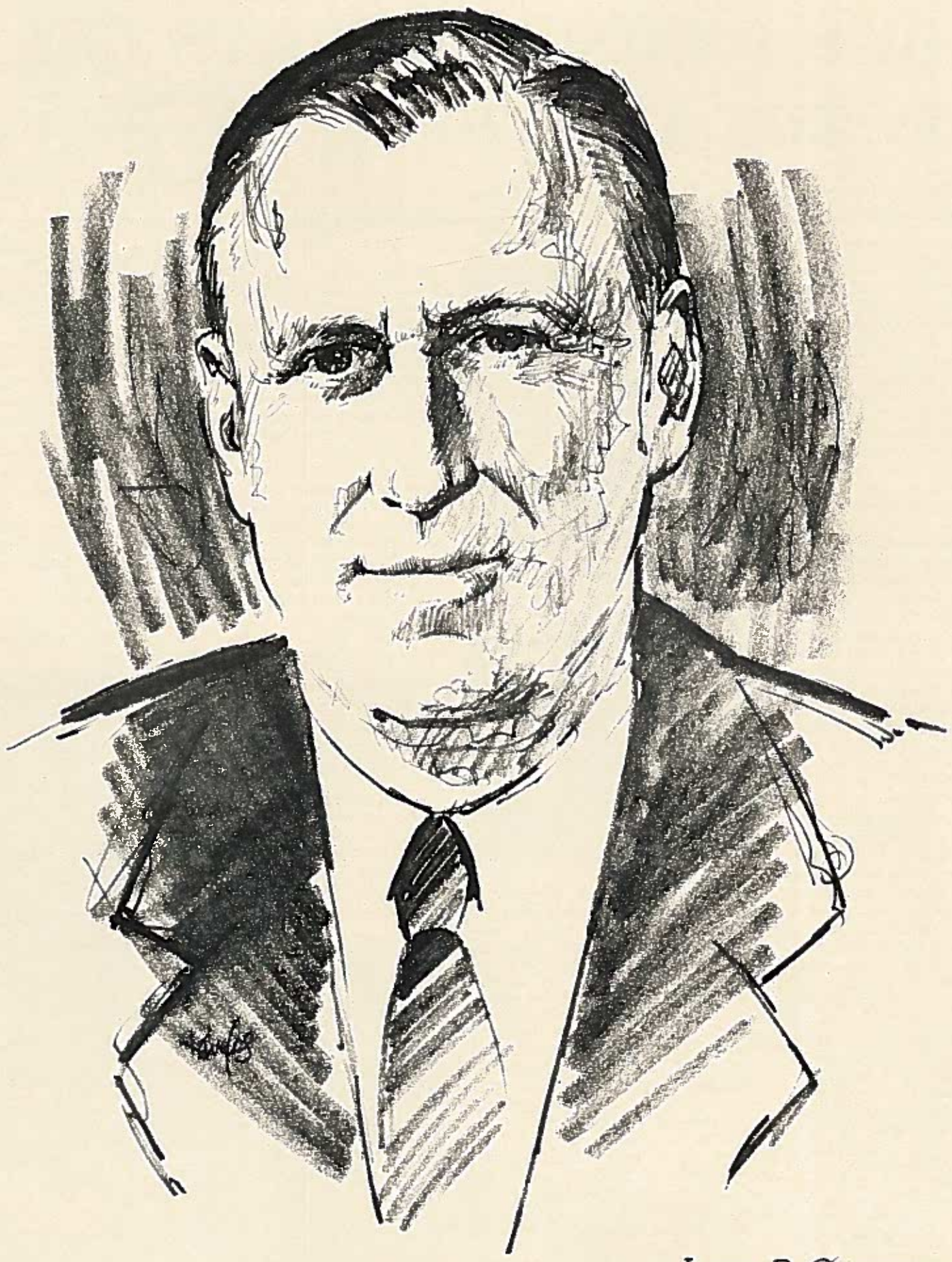
Another OAO, Copernicus, was launched last August 21 and is performing even more detailed studies of the universe than its predecessor. Unencumbered by the obscuring effects of the atmosphere, both OAOs are expected to continue to provide new and exciting scientific data to the world's astronomers for many years to come.

The OAO series of spacecraft was designed and built by Grumman for the National Aeronautics and Space Administration's Goddard Space Flight Center in Greenbelt, Md.

We're honored

Walt Petersen of Structural Test, president of the H. H. Arnold Chapter of the Air Force Association, was in charge of the Silver Anniversary Ball last month at Huntington Town House at which Maj. Gen. Earl Anderson, commander, Eastern Air Force Region, presented an award to Grumman for support in behalf of the Air Force Reserve Program. Vice President Larry Mead accepted the plaque on behalf of the Company. Petersen is at L and Vice President Mike Pelehach at 2nd R.

General Anderson, who is on flying status with over 7,000 flying hours, cited Grumman for "a distinguished record of actively supporting the Reserve program." The Company's policies are "genuinely conducive toward active participation in all of the Reserve components," he said, adding that Reservists are always able to take their full vacations over and above the two weeks of active duty training specified. Personnel policies "are conspicuously non-discriminatory . . . Many employees, including executives of the Company, are Reservists and actively encourage young people to join."



Leroy R. Grumman

LEROY RANDLE GRUMMAN — HE'S JOINING AMERICA'S GREATS IN THE AVIATION HALL OF FAME

Leroy Randle Grumman will join the ranks of an illustrious few December 15 when he becomes a member of the Aviation Hall of Fame at Dayton, Ohio.

Clint Towl, Chairman of the Board and Chief Executive Officer of the corporation that bears Grumman's name, will serve as spokesman for the Company. It was Roy Grumman, Clint Towl, and Bill Schwendler, along with three others, who founded Grumman Aircraft Engineering Corporation and opened its doors for business on January 2, 1930, at about the beginning of the Great Depression.

Most of the founders had served with the Loening Aeronautical Engineering Corporation in Manhattan. In fact, Roy Grumman was the company's general manager. The sixth man was Towl, who was a member of a Wall Street brokerage house. All six men decided (since Loening had been bought out by another company) that they would go it alone, at first by repairing Loening amphibians and designing and building the first amphibious pontoons.

Dedicated to aircraft

At the helm, of course, was Roy Grumman, a native of Huntington, Long Island, and a man with experience in the design, manufacture, and flight test areas — a steady and innovative man whose life was dedicated to aircraft. He was not the movie-script type of swashbuckling aviator, but, rather, an essentially quiet, reserved, thoughtful man; which is not to say that he wasn't a man of action, for he was.

He got into the new field of aircraft rather early after having been graduated from Cornell University with a Bachelor of Science degree in Mechanical Engineering in 1916. Two years earlier, Archduke Ferdinand of Austria was assassinated, thus igniting the spark that became World War I. A year later, Roy Grumman enlisted in the U. S. Navy Reserve. He started as a Machinist's Mate 2nd class, but soon the Navy sent him to Columbia University to study gasoline engines that the Navy was getting as submarine chasers. While in the midst of that assignment, he applied for what he really wanted to do: fly.

With just two paper clips stuck into an eraser, Roy Grumman demonstrated how to fold an aircraft wing to save space aboard a carrier and safely extend the wings for flight safety.

So the Navy sent him to the Massachusetts Institute of Technology ground school for flight training. He then went to the Miami, Fla., Naval Air Station for initial flight training. In the summer of 1918 he took advanced training, and, in September, became a Naval Aviator. Later, after the end of the war in November of 1918, the Navy assigned him to the League Island Naval Yard at Philadelphia as a project engineer and test pilot; and there, he came to the attention of Albert P. and Grover Loening, who were building a low-wing two-seater fighter plane for the Navy.

The Loenings were successful in luring Roy Grumman into their organization, where he soon became factory manager, and later, general manager. During his last two years with the Loening organization, he was in full charge of its aircraft design. And when he left, he quite obviously had a large bank of goodwill behind: the Loenings put up $30,000—a substantial commitment in view of the Depression—to help Grumman Aircraft Engineering Corporation get flying.

The Loenings, of course, knew their man, and knew him very well. They, like others, at the time and since, knew that to be calm and apparently detached—even reticent at times—did not mean that he lacked drive and leadership qualiites. That he could do a first-rate job of managing and directing a company had been demonstrated at Loening. The quiet charm and persuasiveness of Roy Grumman was a powerful asset, and, as those who know him will attest, it blended well with his unassailable integrity. In fact, many people today who had an opportunity to meet and work with Roy Grumman say that integrity was a way of life with him. And that integrity became the heart of the Grumman Company.

Perceptive thrust

Although Roy Grumman was laconic, he was not curt; and if he seemed introverted, there are those who say he was voluble when he felt strongly on an issue—and indeed, that he could be quite demanding. His reserve and modulated tone, then, could leap across their usual personal boundaries and evoke a tempest — but never with bitterness, never with perduring rancor.

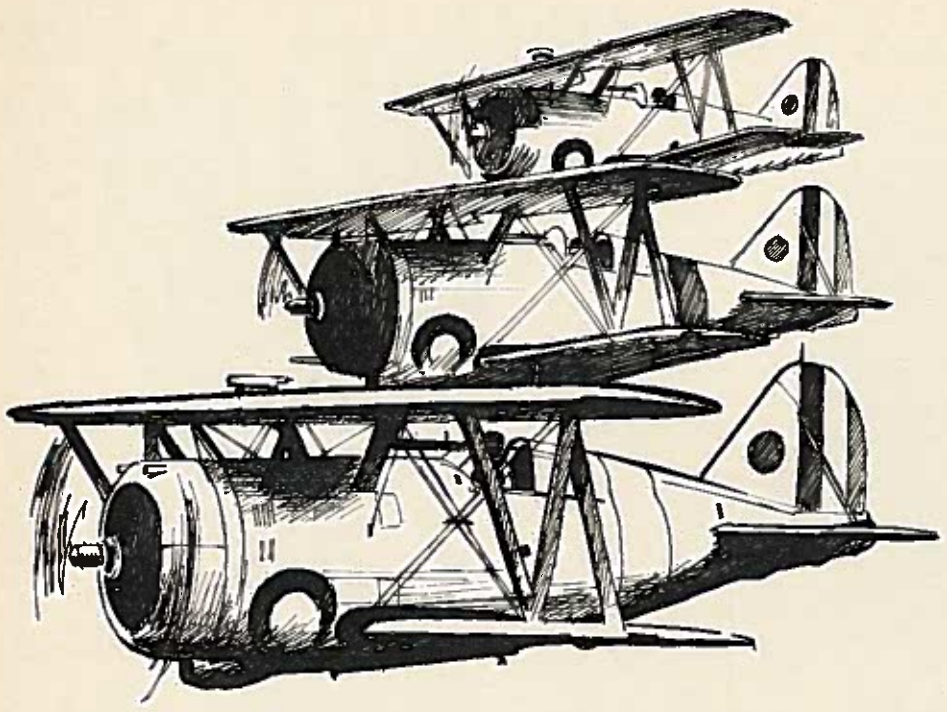
Then, too, Roy Grumman apparently possessed two other great mental assets that complemented his "do-er" traits. One, it's been said, was a somewhat astonishing ability to thrust directly to the core of a problem. He did not get side-tracked by peripheral considerations, though he was quite aware of them. They were of secondary import. And secondly, it's said that he was a great "visualizer," a person who could see in his mind's eye solutions of problems. A celebrated case in point was his visualization of how the concept of a folding wing could be made safe. As he put it:

"Well, other planes had folding wings that folded upward at the tips and if they weren't properly locked when the plane took off it would get about 10 feet in the air and the wings would fold and the pilot would be killed. I tried to get a design that wouldn't do that. The idea was **safety.** Once you got in the air with these they wouldn't collapse—that was the idea. I had an eraser and two paper clips which I just stuck in and got 'em so the wings, instead of folding upward, folded back . . . right beside the body. We used it on the F4F-4, and the Hellcat and the Avenger."

Another of his innovative ideas was the design of the world's first fully retractable landing gear on any military aircraft. In the process, he advised the Navy that the then current breed of aircraft was aerodynamically too thin

Roy Grumman (L) and Leon (Jake) Swirbul (C), Executive Vice President and General Manager, kept in close touch with their Navy customer. In this case, they exchange views with Vice Admiral Marc A. Mitscher, commander of Fast Carrier Force 58 in latter part of World War II.

Special supplement
GRUMMAN PLANE NEWS
December 11, 1972



and more of a "tear drop" configuration was needed. Some in the Navy had reservations, believing that a fatter plane meant a slower one; but the Navy gave him a green light, and out of it came the XFF-1—a plane that flew 30 miles-an-hour faster than any single-seater in the Navy's stable.

As the infant corporation progressed it got another boost from one of the Loenings, Grover, who suggested the manufacture of a utility amphibious float aircraft. Dubbed the Duck, more than 125 were made for the Navy and Coast Guard. That led to a larger, twin-engine amphibian, the Grey Goose . . . and a smaller one for sportsmen and corporate executives, the Widgeon.

Secretary of Defense James V. Forrestal (L) presents Roy Grumman with the Presidential Medal for Merit on March 14, 1948—the first time that the Medal was awarded to an aircraft manufacturer.

In 1937, two years prior to the outbreak of World War II, Roy Grumman developed his first monoplane fighter for the Navy. Named the Wildcat, it was the first of the "cat" series. Because of the imminent war, lend-lease, and then direct involvement in World War II, the Corporation's output soared: 1,978 Wildcats, 2,293 Avengers, and 248 Tigercats, which were the Navy's first twin-engine fighters. (In fact, by arrangement with GM's Eastern Aircraft to manufacture Grumman-designed planes, more than 7,900 Wildcats and 9,800 Avengers were produced.)

Throughout the Second World War, Grumman Aircraft Engineering made two thirds of the Navy's fighters and 98 percent of the Fleet's torpedo bombers. Over-all, from February 1940 to August 1945, when the war ended, 31,376 aircraft of Grumman design were built and delivered to the U.S. Navy and American allies. And prior to that—from 1935 until 1942—GAEC supplied all of the Navy's carrier-based fighters.

Over the years, too, Roy Grumman received many awards, and perhaps the finest came from Secretary of Defense James V. Forrestal, in behalf of President Harry S. Truman: the Presidential Medal for Merit — the first time the award had been made to an aircraft manufacturer. Others included the Guggenheim Medal (1948), the Frank M. Fawkes Memorial (1959), and, from the National Academy of Sciences, the first Hunsaker Medal "for his contributions to aeronautical engineering" (1968).

Nor was the world of Grumman restricted to the realm of Navy aircraft. The Gulfstream I supplanted the Grey Goose as a corporate aircraft; later came the fan-jet Gulfstream II. There also was the sturdy bi-wing Ag-Cat for agricultural crop dusting and spraying; and later, the Super Ag-Cat. In addition,.Corporate subsidiaries were making canoes, yachts, and truck bodies. So there was action in commercial fields.

It was shortly after the Second World War, in July of 1946, that Roy Grumman relinquished his job as President. He continued on as Chairman of the Board for 20 years, stepping down from his Company obligations on May 16, 1966. He remained a Director of the Board, which then elected him as Honorary Chairman for life.

Fitting tribute

It was a fitting tribute to Roy Grumman, not only for his deep and fierce commitment to the Company but, also, for his almost total involvement in aircraft. For he did not wander from his course; he knew where he was going. In his patient, intense, thoughful way he expanded greatly the horizons of his chosen field—and led men to open their eyes to what could be achieved.

It has been said that the Grumman Company "saved Guadalcanal," that the fine, rugged aircraft designed under his leadership contributed immeasurably to the Allied victory in World War II.

For that —and much more—it is fitting, too, that he is in the Aviation Hall of Fame, along with such greats as Orville and Wilbur Wright, Eddy Rickenbacker, Charles Lindbergh, Igor Sikorsky, Jimmy Doolittle, Amelia Earhart Putnam, and Alexander de Seversky.

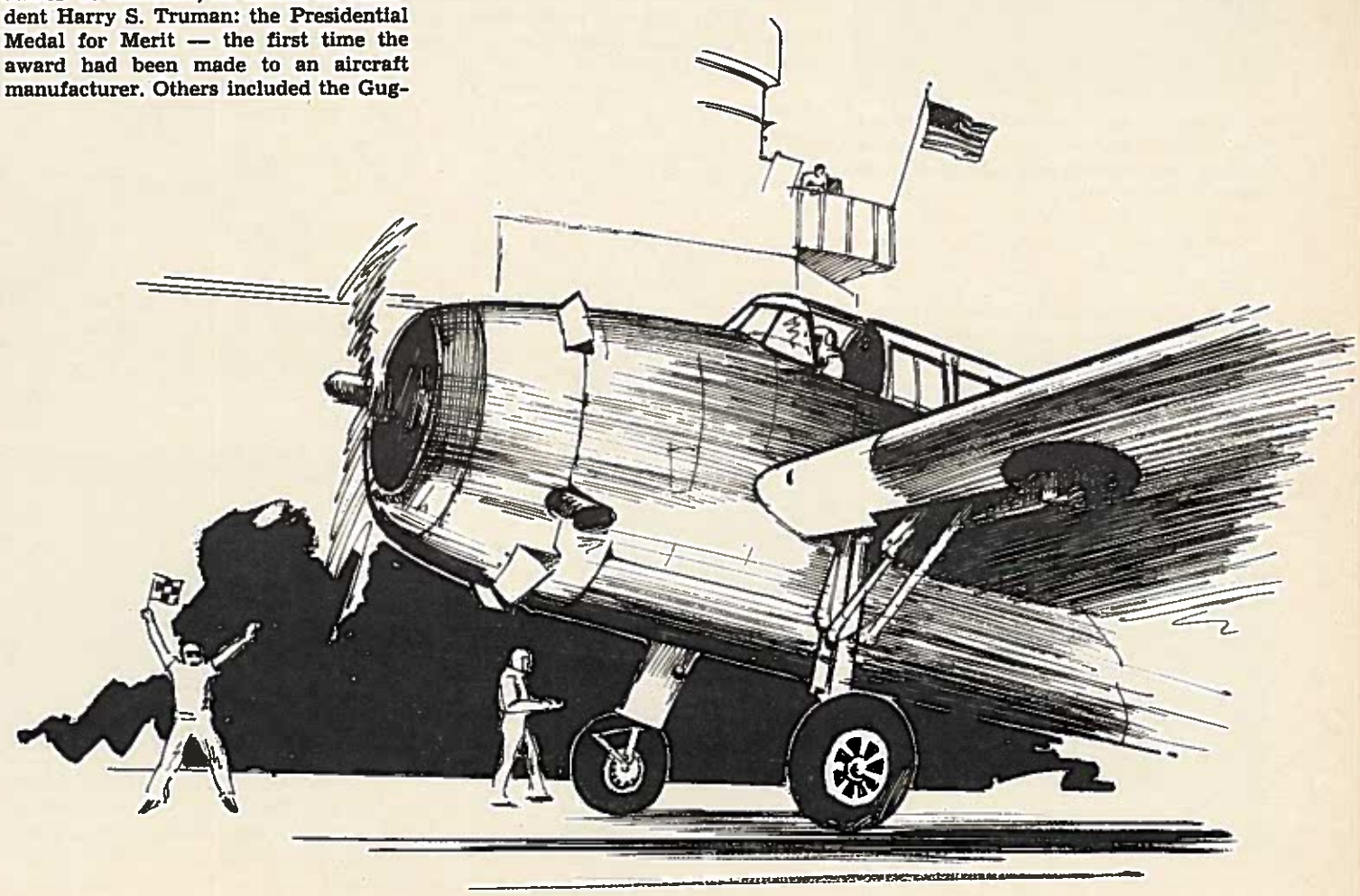
Joining Roy

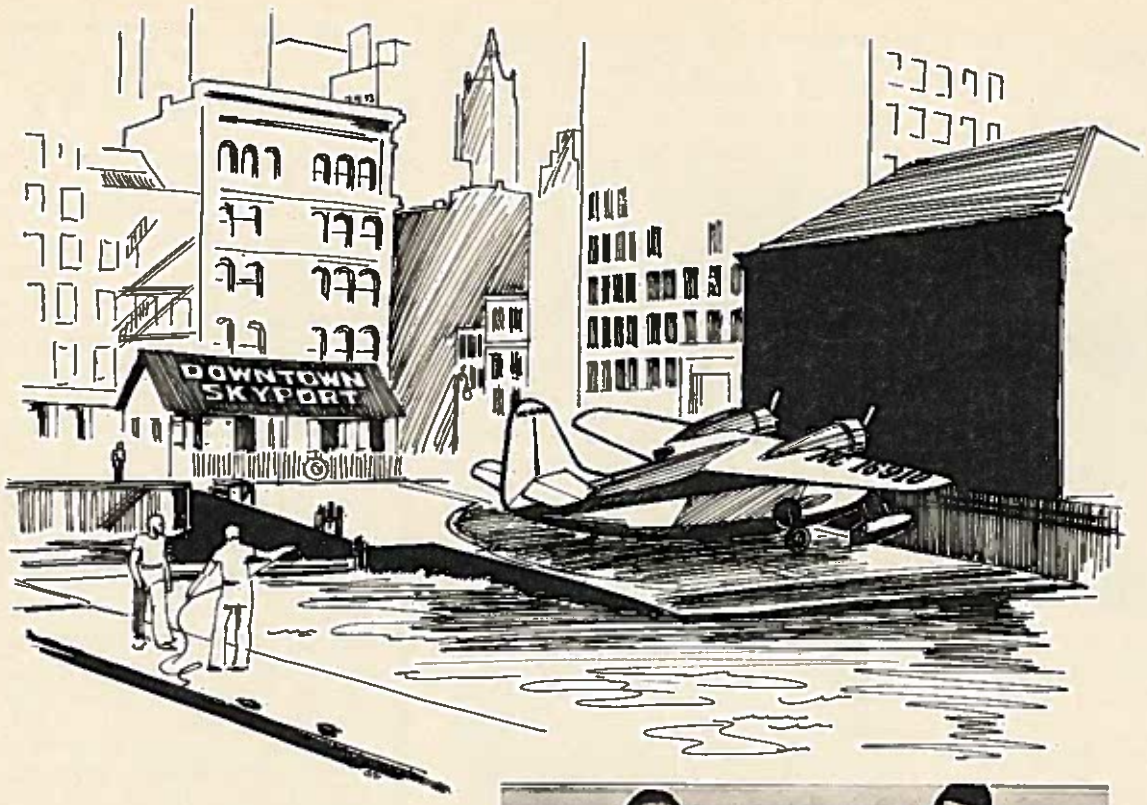
Three others are to be ushered into the Aviation Hall of Fame with Roy Grumman: Claire Lee Chennault, James H. "Dutch" Kindelberger, and Curtis Emerson LeMay.

Chennault was a member of the U. S. Army Air Corps. He retired from active duty at the behest of Mme. Chiang Kai-Shek and then led the legendary "Flying Tigers" during World War II.

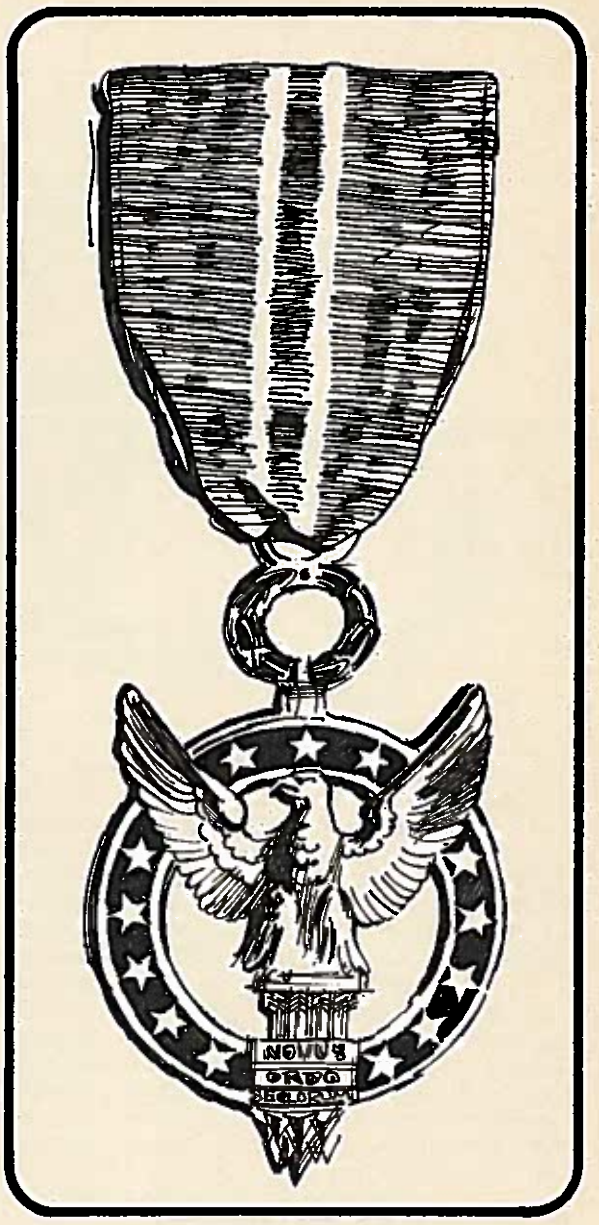
Kindelberger spent some 46 years in the aircraft industry. He worked for the Glenn L. Martin Company and for Douglas before he became president of North American Aviation in 1934. He remained as president and chairman of the board until 1948, when he turned over the job of president. He died in 1962.

LeMay was a pioneer in the use of heavy bombers and a symbol of the Nation's air power through his combat experience and his building up of the Strategic Air Command. When he retired in 1965, he was Chief of Staff of the Air Force.

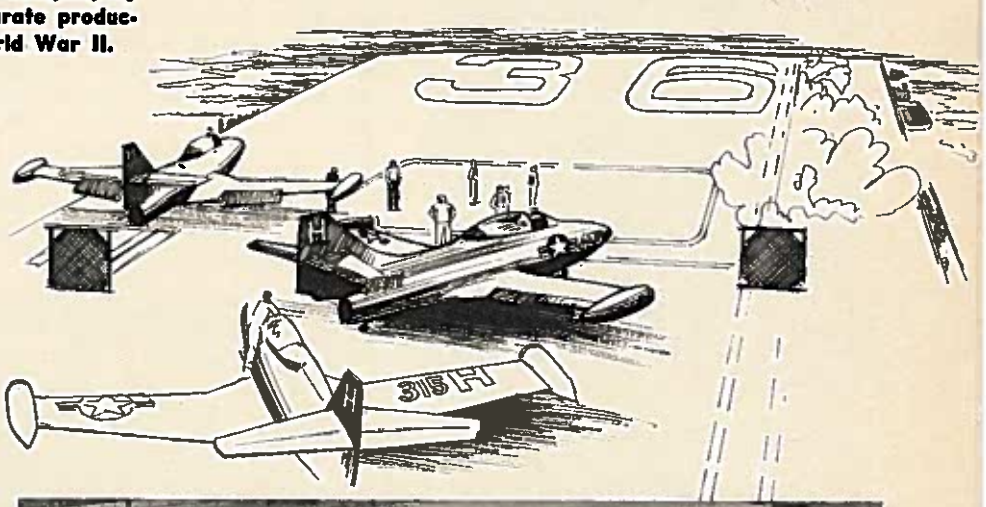


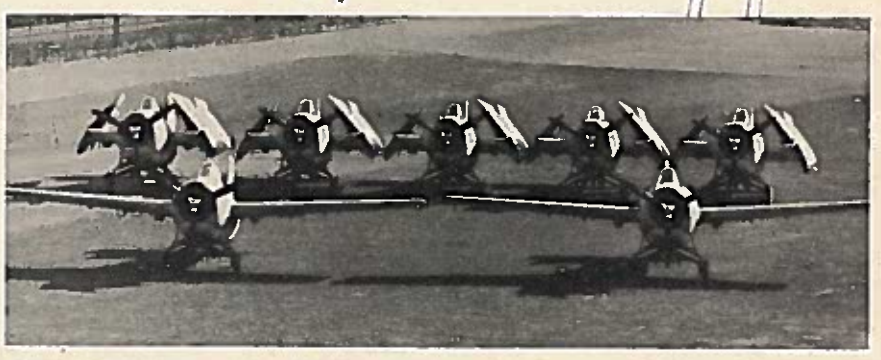


Roy Grumman and Cdr. Samuel M. Randall proudly display the coveted "E" flag presented to the Company by the Navy. The five stars indicate five separate production goals met by the Company during World War II.



Roy Grumman meets with Marine Capt. Joe Foss, one of America's aces, who flew the Wildcat at Guadalcanal and earned the Medal of Honor.





Dramatic evidence of Roy Grumman "stow-wing" concept: In the background are five F4F-4s with wings folded. Only two F4F-4s could be accommodated with wings extended. On a crowded carrier deck, the difference is critical.

Getting together to thrash out some problems are (L to R) Jake Swirbul, Roy Grumman, and Vice Presidents Bill Schwendler and Clint Towl. Conference took place during the early Fifties.

Bunzel, Kirschbaum record 278, 265 to spur pin action

Was it prophetic when Peg Griffith, Rita Mathia, Dennis Henry, and George Bunzel decided to call themselves "Goldfingers?" Maybe so, because right now the foursome is leading the Syosset Mixed circuit; Rita Mathia holds both women's marks with 234-560, and a couple of weeks ago Bunzel hit the **really** big game of the year in the league, a 278. George ended up with 601—that didn't make the golden circle though — as the Goldfingers completed a sweep in the round. Rounding out the highlights: Anna Wicks' 503, Monica Wojtyniak's 478, John Betterino's 246-574, Joe Cardello's 228-553, and Ed McGovern's 302-202-582.

For Nate Kirschbaum, the breakthroughs he seeks are in those far-out fields that Advanced Systems people think about. So when things pop up

Nate Kirschbaum

unexpectedly—like a 265 record breaker in the Gray bowling league—that's an added fillip that adds a little extra fun to life. Nate hit the sticks for a 612 total in addition to erasing Bob Schad's old mark by 22 pins, while others highlighting the play were Bob Jonassen, 224-597, and Don Ragas, 202-201-589 . . . Joe Allison clicked for 242-214-626 to lead the field in the Jericho Mixed circuit, and in the Classic loop, Bill Dargis hit 236-616, Bob Carlin, 578; Al LoDuca, 556; George Olsen, 227-601; and Bud Earhart, 226-588.

It took a while for the 4 Guys to hit the top of the league in Aerospace competition, but in recent weeks the team got a big lift from a hefty 630 record tossed by Dan Aquilino. Dan used a 232 and 215 to climb to that pinnacle, and in the same session Joe Schwab cashed in with 215-200-594, Joe Gallo, 224-576, and Frank Pyzanowski, 212-569. Earlier, Gallo was high with 219-213-591, Ted Dija fired 202-572, and Jerry Pless shot 223-567 . . . Pop-N-Sons got popped, but good, when Ron Reis rolled 204-562 and Bob Pangallo shot 546 to pace an 11-0 whitewash in the Blue league. Al Giacoia's 204-213-576 and Walt Martens 213-540 were among the highlights which also included Joe Morrison's 217-557, Sal Capitano's 215-532, and Mike DiAngelo's 200-552. In earlier play, Rich O'Neill's 231-593, and Pat Fischetti's 238-590 were high.

Eivers hot, too

It's still a far jump from the Mixers' fifth-place spot to the top of the heap in the Woodbury Mixed loop, but should Don Eivers turn in many more performances like the one he had recently, that gap could be bridged pretty quickly. Don took over both individual league records a couple of weeks ago with a 264-619, helping the Mixers to 714 and 1,999 game and series totals and an 8-3 victory over the Rebels. Probably what saved the Rebs from a total wipe-out was John Mayer's 213-575. Hal Lessmann rolled 231-599 and Frank Prochaska 212-554 earlier, while other mixed stars included Carol Mayer, 184-478; Martha Juppe, 477; and Lenore Seip, 450.

There must be a message here: the Sinners are sitting at the bottom of the pile in the Blue Mixed circuit, and the big question is whether the Sinners can ever be winners. But then, in a league sporting such tags as Dummies, Terrors, Cellar Dwellers, et al, do the Sinners give Green Stamps? Highspots in that competition were Ed Sachs, 513, Paul Olenick, 502, Ernie Sandow, 501, and Leslie Coursen, 438. So where's Eddie and Audrey and Ray and Dolores? . . . Bill Schramm's 220 helped keep the Bombers even with the Kingsmen in the race for Bethpage Owl honors, while other pin marks included Lonnie Frazier's 212, Jim Picerno and Rudy Dunkley, who hit 205, and John Warren's 203.

Still not bad, Vince

Vin Crevoiserat finished far off the league record for the year but turned in a pretty creditable 819 in the Masters loop, hitting 221 and 225 along the way to that four-game total. Clem Anton was slightly behind with 235-804, while George Fowler flipped 220-784; Don Vazquez, 791; and Phil Piacentini, 226-777. Phil holds the league mark of 902 and Jake Brouillard is high-game leader with 279 . . . Crevoiserat headlined play in the Hawkeye Mixed league with 566, with Arlene Schwemmer taking the women's laurels in recent sessions with 493 and 485. Other standouts: Charles Calabria, 206-541; Tom Cava, 204-538; George Moritz, 203-554; Lee Newcombe, 473; and Ann Wuestmann, 469.

Bob Nielsen's 209-200-602 led the scoring parade in the Red loop, although Bob Ogilvie turned in the high game of 235 in a 566 string. Stan Domagala and Ted Marines of the Overruns—and there's a bad word—were running over the week before with 204-205-593 and 232-201-588, respectively. Domagala came right back with 204-205-590 to take runner-up honors in the next session, while others doing well were John Kielbasa, 220-581; Joe Kessler, 200-201-559; and Dick Bloomer, 220-565.

And still more . . .

Rounding out the top scores: **Patchogue Mixer** - Ken Becker, 233-554; Mickey Garrett, 212; Gene Burgess, 204-553; Val Lindstrom, 209; Joan Burgess, 519 (that one's a record). **Trader** - Lou Burdette, 206-585; Hal Ebert, 218-212-581; Jim Ingoglia, 200-574; Jim Rose, 233-573; Dick Connelly, 560. **Century Mixed** - Ro Fredericks, 207-498; Harold DeFaber, 211-549. **Classified** - Joe Whelan, 204-586; Norm McDowell, 234-582; Jim Karika, 226-580; John Herman, 201-206-592; Ted Collock, 222-579; Chick Catalano, 253-577; Bob Dudonis, 210-570. **Rocket** - Joe Whitney, 219-547; Don Macina, 212-549; Vic Rasso, 536; John Esposito, 542.

Give it a try!

Although you may never have heard of "team handball," it's an Olympic event, and if Charlie Smith and Len Poveromo have anything to say about it, the sport will have a wide popularity at Grumman, too.

The game, according to those who have observed it, is an extremely fast sport that can be played indoors and outdoors. It combines running, jumping, and throwing, and could best be described as a combination of basketball, baseball, and soccer, with the participants utilizing many of the skills of those three sports.

Grumman plans to field a team in the New York Metropolitan league beginning in January, 1973. Orientation sessions and tryouts are held every Friday night from 7-8:30 p.m. at the Winnicomac School, Kings Park Rd., Commack.

Each team consists of six field players and one goalie—a total of 14 in each game—with the goals about seven by nine feet in size and the playing court approximating the same dimensions of a basketball court. And it's not limited to men; women are invited to participate, and should there be enough for at least one team, they may compete in the women's division of the N. Y. Met league against such teams as the Adelphi women's squad.

For more information, or detailed instructions on how to reach Winnicomac School, call Charlie Smith or Len Poveromo on Ext. 2725 or 9502.

Aagh! . . . You got me

It happened! Two of the undefeated Grumman pistol teams in the L.I. Industrial league met head-on recently—and now there is only one all-winning club in the sharpshooter division in the loop. The Grumman Bs edged the Cs, 965-960, in .22 caliber competition as Mort Weinberg shot 256 and Doug Crooks fired 251 to pace the winners. Sy Cohen's 245 and Mike Baumgarten's 242 led the scoring for the defending champs who lost their first match this year.

Phil Boehm's 273 and Hank Chau's 264 kept the Grumman Gold squad undefeated in the expert division in the Industrial circuit during a 1,055-1,023 victory over Sperry, last year's champs.

In other action, the Grumman Ds lost to Pan Am B, 1,061-1,084. Dave Rice shot 275 and Art McKee 272.

GAA announces ski weekends

Think snow! And maybe by January 26-28—that's the GAA's first week-end ski trip—the snow will be piled high on the slopes of Powder Ridge at Mt. Southington in Connecticut. Accommodations for the trip to New Britain, according to Chet Baumgartner of GAA, will be $55.50 each for four persons in a room, $60.50 each for three per room, and $65.50 apiece for two per room.

That price includes equipment — ski poles, boots, skis—a snack on arrival, breakfast and dinner, and transport to the slopes. There's also a get-acquainted party Friday night, January 26. More details will appear in the next issue of Plane News.

Hellcats on top in hoop opener

The Grumman varsity basketball team opened the season with a 65-49 victory over the Roadrunners in the Huntington Athletic Club League. The varsity, called the Grumman Hellcats had a rougher time of it than the score might indicate. They trailed 7-2 after three minutes of play and had a difficult time getting untracked. Only the great hustle of "Jumping John" Ebron kept the Hellcats in the game during the first quarter.

In the second quarter, the Hellcats were still ragged but the rebounding and sharp passing of Jim "Roadblock" McKinstry gave the Hellcats a two-point lead at the half.

The third quarter was a see-saw battle, with the lead changing hands several times before the Hellcats built a four-point lead. The fourth quarter proved to be decisive for the Hellcats as they outscored the Roadrunners 21-9 to assure the victory. Frank Quarto and Jim Cruthers led the team in scoring with 18 and 16 points, respectively. Coach Mel Knopf had particular praise for the offensive passing of McKinstry and the defensive play of Quarto.

Two-in-a-row

The Grumman Hellcats made it two-in-a-row with an 84-69 victory over a team called GH in the Huntington league. Great shooting by Quarto gave the Hellcats a 20-point lead in the second quarter, and the opposition never got closer than 14 points during the remainder of the game.

Quarto hit 11 of 18 shots from the floor and 10 of 10 from the foul line to finish with 32 points. Fine rebounding by Jim Cruthers, Bill Diercks, and Walt Mickle gave the Hellcats control of play throughout the game. Cruthers, Diercks, and Lee Gendron chipped in with 16, 10, and 9 points, respectively.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.
Type or print ad on form available at Employees Service and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.

For Adoption

DOG: St. Bernard/German shep. mix, lrg., lovable lazy spayed female, companion & watchdog. MA 6-2825.

GUINEA PIG: Male, w/cage. 929-6732.

PUPPIES: Mixed breed, 5 male, 2 fem. 543-6319.

Wanted

ENGINES: Model airplane, ign. type, used or new, for antique engine collection. MA 6-2825.

BOAT: 16 ft. fbgls., w/40 hp motor & trlr., will pay $500. PE 5-0783.

HDTOP.: Fbgls. or metal, for '66 Austin Healy 3,000 MK III. WE 1-0741.

LAMP: Small solid wood mahog. or walnut, or end tables, reason. WE 8-6522.

TRAINS: Old elec., Lionel or Amer. Flyer, small or lrg. sets, pay cash. JU 4-6771.

For Rent

ROOM: Bellmore, pvt. home, kit. priv., reason. 221-3029, after 6 p.m.

APT.: Selden, 2 rm., partly furn., utilities, business person, $150/mo. 732-8082.

ROOM: Pvt. entr., bath, hot plate & refrig., business man only. PY 6-1468, after 6 p.m.

APT.: 2 bdrm. lux. garden apt., pvt. entr., rear terr., ½ mi. to Grumman, $315/mo. 822-6538.

ROOM: Levittown, furn. studio, refrig., pvt. entr., suit. business woman. 735-0602, evgs.

ROOM: Bethpage, close to Grumman, semi-pvt. bath. gentleman pref. 822-3819.

HOUSE: E. Northport, furn., 3 bdrm. ranch, nr. Rt. 25A, walk to schools, stores, avail. Jan., lease for 8 mos., $325/mo. 261-3608.

HOUSE: Hauppauge, 3-4 bdrm. hi-ranch, all appli., fenced yd., schools, avail. Feb., $335/mo. 543-3836.

HOUSE: Pocono Mts., 2 bdrm., bath, kit., din. rm., liv. rm., 40 mi. drive Camelback & other ski areas. LI 1-5177, after 6 p.m.

SKI LODGE: Furn., Sugar Bush, Vt., 3 bdrm., 2 bath, liv. rm., din. rm., kit., sleeps 7, rent by wk. or mo. MY 2-7134.

APT.: Bethpage. nr. Plt. 3, 3½ rms. 938-5972, after 5 p.m.

APT.: Bethpage, 3½ rm., air cond., no children or pets, avail. immed. 364-2631.

ROOM: Furn. w/refrig., newly dec., nr. all transp. & shop., Hicksville - Jericho area, man only. GE 3-6192.

Ride Wanted

BETHPAGE: Thomas St./Stewart Ave., to Plt. 5, 8-4:30 p.m. 681-6832.

BOHEMIA: Perm., to Plt. 25, 8:12-4:42, urgent. 589-2426.

S. MERRICK VIC.: Perm., to Plt. 25, 8:12-4:42. 223-0949.

Car Pool

KEW GARDENS: To Plt. 1 or 4, 8-4:30 p.m. 441-9529, evgs.

Lost

WRISTWATCH: Seiko, silver finish, date indicator, bl. leath. band, presumably broken. If you have Tim's time on your hands, now you can return it. Miss it on mine. Tim, WA 2-4157.

For Sale

RIMS: 8.55x15, $12/pr. MO 9-8438.

CHAIR: One barrel back tapestry, $25; 1 drum tbl., $15. 931-5229.

TURNTBL.: 4-spd., Garrard, stereo, 70 w amplifier, mono, EICO FM tuner, 12 spkr. in 18x21x23 in. high cabinet, $60. PY 6-5196, after 4:30 p.m.

CAMERA: Cine Kodak, mod. 60 f, 1.9, case & filter, Ampro proj.; metal case; 8mm splicer, editor & rewinds; Weston Master expos. meter & case; Fed. enlarger, model. 250; Argus Jig-A-Matic, new; print dryer & print. box, two 35mm daylight develop. tanks, trays, clips, etc. 212-969-3061.

CAMERA: Graflex XL rangefind., small press camera outfit, w/80mm Zeiss Planar f2.8, 120 roll film, hold. & hand grip, new, orig. box w/guar., $375. 212-923-8509, evgs.

FURN.: Fr. Prov. din. rm. tbl., china closet; small white bedrm. set. 473-3968.

For Sale

PUPPIES: Irish set., champ sired, AKC, avail. for Santa. 588-2868.

STOVE: Norge, gas, 39 in., auto. oven & timer, $25; clothes dryer, elec., $25. 862-8284.

BIKE: Boy's 20 in., $15. WE 5-0153, after 6 p.m.

BIKE: 20 in. conv., w/sissy bar & banana seat, $15 or best offer. MA 7-4158.

CAMERA: Wollensak #53 w/ 3 lens turret head, 8mm mavie camera & Keystone 95 8mm proj., combination $50. PI 1-7698.

RADIO: Grundig TR-5000 trans-Oceanic port., AM/FM/LW, 4 band shtwv., case and pwr. pack, $80. Bob, IV 9-2297.

MARIMBA: Deagan w/resonant tubes, stand, 2 oct., folding, w/carrying case, $85; Excello pwr. reel mower, nds. sharpening, $25. 589-5988, after 6 p.m.

SKIS: Head jr. 90, 170 cm, $45; Corvette, 170 cm w/bind., $45; Henke boots w/4 buck., size 6, $20. OV 1-4424.

BIKE: Girl's Schwinn 20 in., $20. MO 5-5995.

KITCHEN SET: Walnut 42" round tbl. w/18 in. leaf, formica top, four chairs, ask. $37. 265-4779.

BUNK BEDS: Colonial, w/ladder & Sears deluxe mattresses, can be used as twin beds, used 8 month, $125. 293-7710 after 5 p.m.

CANDLE HOLDERS two, solid brass, wt. base, new, $14; wall sconce set, solid brass, 5 candles ea., $34. 781-1182, after 5 p.m.

CARRIAGE: Atlas, converts to car bed, $10. 757-0438.

WHEELS: E. T. mag, 7x14, 5 spoke w/locks, fits '71 Chevy and similar, set of four, $125. MO 7-8350 after 6 p.m.

REFRIGERATOR: 2 dr., top freezer, Imperial 122-59, 12.2 cu. ft., best offer. 333-0637.

TOOL: Ingersoll, Rand elec. impact wrench, $45. MO 9-7714 after 6 p.m.

TIRES: BF Goodrich snows, Trailmaker Silvertown, two G78x14 4-ply, two 7.75x14 4 ply, all 4 mount. on rims. 862-8268.

TEST EQUIP.: EICO 460 oscilloscope, $75; 368 sweep mrkr. generator, $75; 324 RF signal generator, $30. 938-3708.

ALARM SYS.: Ultrasonic Intruder, 3m, new, walnut cab. 6½x5¼x3 in., 300 sq. ft. view, extra alarm horn, in/outdoor mtg., $80. E. Manaker, Ext. 3513.

HOUSE: Fla., 2 blks. to beach & 1 to river, 4 bd. rm., 2 bath, formal din. rm., fam. rm., scrnd. patio, 2 car gar., cntrl. heat & air, well & pump, nr. Patrick AFB, cable TV, avail. Dec. '72, $38,000. R. Paradiso, 4841 Banana Riv. Blvd., Cocoa Beach, Fla. 32931. 511-7-2708 (KSC).

HOUSE: Colonial Cape, 4 bd. rm., form. din. rm., finished. bsmt., 2 full bath, den, liv. rm. w/firepl., wooded, 1½ car gar., xtras, Melville-Huntington, 1 mi. from Expy., $42,500. 427-4362, after 6 p.m.

RANCH: E. Northport, 3 bdrm., 2 bath, liv. rm., din. rm., eat-in-kit., panld. den, lndspd. w/treed ½ acre, patio, xtras, $39,900. 368-0762.

HOUSE: 9 rm. ranch, ½ acre, N. Brentwood, walk in cond., fully fenced, gar., w-w, wash., dry., refrig., s/s, OHW, 2 zone heat, oak floors, brick & shingle, $33,500. 273-2363.

FORD: '66 Fairlane 500 wag., wh., 38,000 mi., R&H, auto. trans., 2 way rear door, $575. 735-2649.

PROPERTY: Waterfront, L.I. Sound, 2/3 acre, pvt. beach, Southhold. Doris Anderson, Ext. 9842.

TIRE: New orig. equip., Goodyear pwr. cushion, w/w, polyester cord, 775x14, on '69 Plymouth Satellite wheel, $25. 261-1186.

CHEVROLET: '67 Impala, 396 eng., pwr. steer & bks., mount. snows, 43,000 mi., $875. Frank Campbell, Ext. 3800.

For Sale

HOUSE: Commack, 4 bd. rm. ranch, 1/3 acre, eat-in-kit. w/dishwash., din. rm., liv. rm., lrg. fam. rm., cntrl. air, s/s, attach. 2 car gar., bsmt, 16x30, cov. patio, ask. $38,990. 543-9021.

ENGINE: '69 VW, 53 hp, compl. rebuilt block w/ new pistons & liners, installed, $225. 273-6239.

BARRACUDA: '72, 10,000 mi., good on gas, buck. seats, black int., vinyl roof, 318 cu. in. eng., w/w, sport steer. wheel, auto. trans., compl. instrument., $3,500. 589-4136.

T-BIRD: '56 auto. trans., paint job new, best offer. OR 1-3799.

OLDS 88: '57, orig. 64,000 mi., pwr. bks & steer., auto trans., R&H, ask. $300. 751-1084.

FURY III: '67 sedan, needs work, $100. HU 8-3215.

VALIANT: '63, 6 cyl., good for second car, best offer. Call 708-1988 after 6 p.m.

PLYMOUTH: '66, 9 pass. wagon, $300. JU 7-0381 after 8 p.m.

CHRYSLER: '60, future classic, cust. int., 383 Golden Lion V-8, p/s, p/b, p/w, $75. C. Merlino, Ext. 2874.

PONTIAC: '64 Catalina, 4 dr. hdtp. V-8, p/s, p/b. FR 9-7653 after 6 p.m.

OLDS: '63 conv., pwr. steer. & bks., radio, snows, just timed & tuned, $300. 744-1683.

MISC.: Skis, competition 183 cm. & poles & bind., $30; Dolomite buck. boots, ize 7½, $20; Christmas tree, 7 ft. firepr. art. Scotch pine, $16; redwood lawn furn., 6 ft. table and 2 bench., 2 in. thk., $35; antique satin drapes, lined, double width, $20, triple, $30; Sears Kenmore washer motor & timer, all $15; lg. wall mir., $15. 921-3192 evgs.

SKIS: K2 Jr. Competition, 180 cm; Hart Hornet, 160 cm, w/Look Nevada Jr. bind.; boots, Nordica, 5 buck. eather, size 7½M; boots, child, 5 buck, rubber, size 6. 212-347-2090.

FISH TANK: 40 gal. Crown, Aquamaster filter, heater, lights, stones, gravel, stand, $100. HA 3-3611.

STEREO: Amplifier, Harman-Kardon A500, 50w ±½ db 12-35,000 w/ 2 Jensen spkr. sys., $45. 928-1043.

CAMERA: Kodak Retina Reflex w/ leath. case, wide ang. lens, filt., flash attach., tripod, shutter cable, gadget bag, fact. refurbish., $175. FR 9-7536.

GUITAR: Grassi cust. elec., $200; Gretsch 8 pc. drum set, $200; Ferrari 120 bass elec. accordion, $225. 669-8155.

POOL TABLE: 6 ft. wood., 2 cues, ball rack & 15 balls, $25. 781-8653.

CITROEN: '64 DS-19 air cond., radio, rear spkr., fr./rr. heater, . wndw. defogge, body needs work, $325. 621-4166.

ORGAN: Conn Prelude, early Amer. cab., $1350. 922-9338, after 6 p.m.

STEREO: Receiver, Sony St R 6200F, solid st., 1972 mod., $575. 751-1860.

BIKE: Girl's 24 in., hand & foot bks., $20. 212 IN 3-9239.

STEREO: Motorola, port., $35. MY 4-1890.

PIANO: Hardman-Peck mahog. grand, w/bench, $595. 766-3671, after 6 p.m.

FURN.: Heywood Wakefield blond mahog. chest & dresser w/mirror & night stand, $95; 2 twin size box springs & hdbds., $10; 2 Vega 13 in. whls., extra wide, $14; '65 Chev shop manual, inc. Chevy II & Chevelle. PY 8-4258.

BDRM. SET: Modern 6 pc. walnut bed & spring, vanity, man's chest w/cedar closet, chair, $75. WE 5-2997, 9 a.m. - 8 p.m.

TV: '72 Motorola 25 in. color, $425; kitch. set tbl., 4 chair, grn. w/wr. iron, $50.; Ital. prov. liv. rm. set, couch, coffee tbl., end tbl., cane chr., $350; patio furn., wire mesh, grn. tbl. & two chr., $40; lawn mower, 24 in., $40.

For Sale

CAMERA: Pentax Spotmatic w/f.4.5 super takumar lens, 135mm super takumar telephoto lens & 2,8 55mm lens, 2x adptr., lens hood, strobe w/pwr supply, case, tripod, extras. 727-7831.

WINDOWS: Storm & screen, wood, 13 ea., 36 x 55 in.; 3 each, 28 x 38 in., (32 units in all) all for $60. BA 3-3469 after 5:30 p.m.

TBL: 2 lt. wd. tiered end tbl., $15; 1 lt. wd. coffee tbl., for sect. furn., $10. 884-0152.

DIN. RM. SET: Danish mod., tbl., 4 chrs., china closet, $100; two barrel chrs. for uphol., $10 ea.; child's comb. dresser & closet, walnut & white formica, Childcraft, $30. GE 3-6325 or WE 8-6246.

REFRIG.: Frigidaire, 9 cu. ft., $15. JU 6-6878.

HUTCH: Early Am. antiqued pine, 6'6" x 5'5", 2 yrs., $375. 212-740-9876, evgs.

STEREO: Dyna PAS amp., 3 pre-amp & ST-70 amp, $90. 751-1256.

TV: Heathkit 23 in. color, Med. cons., latest wiring changes, Matrix picture tube, remote contr., $200. 747-7152.

HUTCH: Maple Ethan Allen, 4 dr., 8 draw., 60 in x 72 in. hi, $165. 273-5603.

PROPERTY: Approx. 14 mi. so. of Walt Disney World in heart of centr. Fla., term paymts. 437-6368.

TROMBONE: Selmer-Bundy, w/case, $65. CA 1-9070.

FISH TANK: Wr. iron stand, pump, all access., $20. CH 9-5758, after 4 p.m.

FISH TANK: 14-20 gal. SS w/ pwr. filt. plus xtras, $13; 5-10 gal. SS w/pwr. filt. plus extras; one 30 gal. SS w/pwr. filt. plus xtras, $17; stand for 30 gal. tank; stand for 20 or 10 gal. tank. LI 1-8709.

ROD & REEL: Spin., 1½ ft., 1 pc., carboloy guides, cust., w/quick #550 reel, $50. 746-4684.

WHEELS: Two chrome for F70x14 wide ovals, Cougar '68 or '69 mount. tires free, $20. FL 2-8925, after 7 p.m.

DATSUN: '68 PL-510 4 dr., sed., 4 spd., AM/FM Blaupunkt radio, new tires, 42,000 mi., orig. owner, garaged, ask. $850. 586-0757.

MOTORCYCLE: '67 BSA Chopper, 650 cc, $850. 791-1040.

MOTORCYCLE: '72 Suzuki, 350 cc, 1,200 mi., $695. MO 7-9075, after 5 p.m.

FIREBIRD: '69 conv., AM/FM, cons., auto. trans., 58,000 mi., green w/wh. top, nds. valve job, $850. 264-3129.

BEL AIR: '64, 4 dr. sed., pwr. steer., 6 cyl., auto. trans., snows, owner's man., garaged, $295. AN 6-6877.

CATALINA: '68 4 dr. sed., auto. trans., std. V8, radio, $750. 212 591-8951.

VALIANT: '61 6 cyl., auto. trans., pwr steer., 4 dr. MO 5-3319.

TRUCK: '55 Chevrolet, 1 ton pick-up, #3800, comp. rebuilt eng., ask $375. 271-2807.

LE MANS: '68 2 dr. hrdtp., a/c, pwr. steer., vinyl roof, radial tires, $1,000. 212 853-4412.

VW: '71 squareback, std. trans., AM/FM, 24,000 mi. LT 9-9244.

CAMPER: Pick-up type, Del-Rey sky lounge shower, gas & elec. heat, refrig., freezer, stainless 4 burner stove, oven, AM/FM, intercom, invrtr., & batt. charger, mono-matic, xtras, $2,600. 589-3439.

BOAT: 17 ft. Larson fibergl., 80 hp Johnson, navy top, back & side cover, built-in 18 gal. tank, 6 gal. gas tank, Cox trail., 3 spd. winch, depth finder, $1,700. 666-0946.

MOTOR: Evinrude otbd. mtr., elec. str., 40 hp., '69 new pwr. head, $400; 18 ft. runbt. plywd. w/fibergl. hull, $100. 883-2560.

TIRES: Snow, 2 stud., w/w, 8.85x14, 14 in. Chevy rims & 2 new Delco rear shck. absrbrs, fit '65 thru '70 Bel Air, Imp., or wagon, $30. WA 1-3465.

TIRES: Snows & rims, 2 G.M., 650x13, $15 pr.; 8.25x14 snows & GM rims; 4 rims GM 14 in; rims Ford & GM, 15 in.; Valiant rims, 13 in. MO 9-4278.

TIRES: Snows, Opel Kadett, two, 6.00x13, mounted, Allstate, 2 for $20. 785-4637.

HOUSE: Garden City So., Eng. Tudor, 8 rm, 5 bdrm., 2 bath, basemt. & gar., slate roof, firepl. in liv. rm., eat-in kit., form. din. rm., carpets, drapes, wash., dry, 3 air cond., mid 40's. 293-8343.

HOUSE: Smithtown branch, Col. cape, vac., wooded half acre, 4 bedrm., 2 bath, formal din. rm., eat-in kit., lg. liv. rm, lg. den, t.o. or refinance, $39,000. 585-3452, after 6 p.m.

HOUSE: Huntington, S.D. 13, nr. shop., 5 rm., tiled bath, pan. kit., central air cond., fenced in yd., patio w/brick bbq., redwd. shed, above-grd. pool, fenced deck, spec. outdr. light., $28,000. 271-9237.

HOUSE: Colonial, 3 bedrm., 1½ bath., 2½ gar. w/ independ. heat, $35,000. AR 1-1273.

For Sale

HOUSE: Commack, Col. brick & cedar front, 8 rm., 4 bedrm., lg. eat-in kit., sep. D/R, 2½ bath, 2 car gar., lg. patio, full bsmt., ¼ plus acre, corner lot fully lndscpd., w-w, bsbd. heat., wash., dry., dishwash., $46,000. 543-0895.

HOUSE: Holbrook, ranch, expand. to 5 bedrm., liv. rm., fam. rm., lg. eat-in kit., 1½ bath, fully insul., w-w s/s, att., gar., concr. patio, alum. stor. shed, fenced, sewers, lndscpd., 1/3 wd. acre, wlk to school, xtras, $35,000. 585-5228.

HOUSE: 3 bedrm. ranch, eat-in kit., lg. liv. rm. w/ w-w, taxes $590, full bsmt., plot 125 x 100, fenced, s/s, resident. area, Bohemia, $26,500. LT 9-1680.

HOUSE: East Meadow, 3 bedrm. w/ expan. attic, full bsmt., ½ fin. w/bar, in-grd. pool 20 x 40, w-w, appliances, s/s, 3 car gar., gas h.w.h., 15 min. to Grumman, $44,500. 826-8649.

MOTORCYCLE: '70 Harley Davidson, 350cc Sprint, saddle bags, lugg. racks, 2 helmets, $475. 589-3389.

DODGE: '64 330 4 dr. sed., slant 6 cyl., auto., new bks., balljnts., tie rods, ask. $200; '65 Plymouth Fury III, 2 dr. hdtp., 381 c., vinyl roof, auto., R & R, $350; '72 Yamaha, 250 cc, $675. 587-8974.

VW: '71 Squareback, red, 3,100 mi., book serv., undercoating, R&H, bumper guards, $1,900. ED 4-0839.

JAGUAR: '54, silver, new bks., $2,000. Eddie, 669-1960.

VW: '66 Bug, rebuilt eng., new bks. & batt., $400. 586-3248.

LE MANS: '68 2 dr. hdtp., auto. trans., ask. $750. 586-3285, after 6 p.m.

KARMANN GHIA: '65, yellow, 4 spd. ss, orig. owner, $475. EM 3-6617.

RAMBLER: '61 blk. Classic, 4 dr. sed., auto. trans., pwr. steer., nds. valve job, new tires & stud. snows, $75. 212-444-8677.

FORD: '64 2 dr., V8, std. trans., new tires, batt. & starter, nds. minor repairs, $150. 543-5642.

T-BIRD: '57 (classic), new rebuilt trans., mag. wheels, new radiator, muff. & pipes, remov. hdtp., sanded & primed, xtras, new uphol., $650 firm. 269-9132.

CAPRI: '71, 2000cc, manual, decor grp., radio, grn., $1,900. 751-2230.

CALENDAR of events

Notice of events for period Dec. 21 - Jan. 12 should reach Plane News by Jan. 5.

Amateur Radio Club: Wed., Dec. 20, 5 p.m., Amateur Radio Station, local, Christmas message hanling to Servicemen overseas, open to outsiders. Emmett Goodman, Ext. 87125.

Fencing Club: Mon. & Thurs., 5 p.m., Plt. 30 cafe, instruc. & competition. George Kegney, Ext. 7541.

Society of Aerospace Materials & Process Engineers: Tues., Dec. 12, 6:30 p.m., happy hour; 7:30, dinner, 8:30, talk, Kings Grant Motor Inn, Plainview, Exit 46 L.I.E. China, crystal & flatware prog., spkr. Ms. Karen Kowalski, Rosenthal USA Ltd., open to outsiders. C. Carson, Ext. 9101.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

ALFRED L. COSTA of Facilities Maintenance, Plant 12, died December 2. He was 46 years old and had been with Grumman eight years. He lived at 633 11th St., West Babylon.

AUGUST J. SCHIAVETTA of Alodine, Plant 2, died December 6 at the age of 54. He had been with Grumman for over 30 years and lived at 259 9th St., Bethpage.

SHARON L. HARTNETT of Program Procurement Office - Space, Plant 25, died December 7. She was 29 years old and had been with the Company 11 years. She lived at 55 Railroad St., Greenlawn.

For Sale

MISC.: Built Rite coach. hand decorated. access., Swing-o-matic modern bed & vanity. 212 FL 8-8788.

MISC.: Sofa bed & chair, $75; TV combo, needs repair. $15. 473-3695.

TV: Admiral, 23 in., b&w console, $65. MA 6-2825.

WHEELS: Two, for '67 Skylark, $10. 212 FL 3-4593.

RUG: 12x18, avocado green w/padding, 1½ yrs., must sell, ask. $100. 981-0098.

OLDS: '69 Delta 88, 2 dr., tires. pwr. steer & bks., w/w, air cond., new bks., recent tune-up, snows. CH 9-9145, after 6 p.m.

CHEVROLET: '65 Biscayne, 2-dr., snows, auto. trans., $350. 751-5193.

DATSUN 2000: '69, 5-spd. trans., 4 radials, new muffler, 36,000 mi., $1,500. SU 5-4067.

PONTIAC: '63 Bonneville, rebuilt eng., new batt., bks., starter, & heater, $350. 864-8195.

ROVER 2000 TC: '67, 4-dr. sed., 4 spd., pwr. disc bks., radial tires, ask. $750. GR 5-9144.

BEDS: Bunks, colonial, w/ladder & Sears deluxe matt., can be used as twin beds, used 8 mos., $125. 293-7710.

MOTORCYCLE: '66 B.S.A., Lightning, 650 cc, Z bars, new tune-up, tires, alternator, xtras, $575. 293-7815.

HAIRSETTER: Clairol Kindness w/20 elec. rollers, brand new, nv. used, $12. 587-4217, after 5 p.m.

HAM EQUIP.: Heath HW-16 Novice CW transceiver w/crystals & spkr., $90. 751-1256.

SEW. MACH.: Port. Singer; port. typewriter; casual sq. tbl.; belt massager; ice skates; storm wndws.; train layout (N gage), toys, etc. AN 1-4720.

PUMP: Deep well jet, Deming, 1 hp, w/tank, 2 gages, valve, regulator, hi-lo limit switch, used 1 yr., $150. 744-9886.

XMAS TREE: 10 ft. artificial pine, fold-up branches, 2 sec., decorations, 5 sets lights, stand inc., used once, ask. $65. 665-3758.

CASSETTE-RECORDER: Stereo-Panasonic, AM-FM, w/ spkrs., $95. 938-7661.

PUPPIES: German shep, AKC reg., male & fem. (parents guard dogs), male $50, female $45. 212 GL 4-5842.

PUPPY: Boston terrier, fem., 5 mo., home bred, champ sired. PE 1-4815.

DOG: Old English sheepdog, AKC, fem., unspayed, 3 yrs., housebroken, best offer. 293-8861.

LIONEL TRAIN SET: 027 w/tracks, houses, etc., 3 boxes full, $30. 212-347-6516, evgs.

PANTS JACKET: Size 5, burnt orange, tailored, fully lined, w/belt, $30. 921-8194.

KONICA: 200m lens, 80-200/305, auto. hexanon w/case, filter, sunshade, pistol grip, must sell, $250. 724-2496.

BICYCLE: Boy's 20 in. Sting Ray, 3-spd., hand bks., banana seat, $35. 884-0152.

CRAFTSMAN: 7 in. circu. saw, 1¾ hp, 5,800 rpm, inc. comb. & plytooth blades, $30. 234-1052.

HEAD SKIS: Model 720, 208 cm. long., nv. used, no holes drilled, ask. $65. LI 1-8590.

SKIS: Head 720s, 203 cm, used 3 times, Cubco bind, $85. 666-5674.

SKI EQUIP.: Head stand., one pr., 6 ft. 6 in. (195 cm) w/Northland ski free bind., $40; 1 pr. 6 ft. 6 in. (190 cm) w/Skimatic bind., $40; 1 pr. man's lace boots, 8½ med., $10. 692-5066, after 6 p.m.

SEW. MACH.: Kenmore, oak console cabinet, $30. WE 8-6522.

RUG: Shag, 9x12, tangerine, $30; surfbd., 9 ft. x 6 in.; car racks, both $50. 546-2549.

MISC.: Stereo in cab., $75; dinnette set, formica wood-lock top & 4 chrs.; wooden tbl., 2 drop sides, $50; coffee tbl., $15; roll-top desk, 36x48 in., $175; ice cream parlr set w/2 chairs, $25; med. cab., towel rack, etc., $20. 588-5625.

MISC.: VW AM radio, spkrs., & mount. plate, $25; VW roof rack, $10; VW undredash shelf, Whitney 89-9248); VW fix-it book, Whitney 16-5064, all for $35. 271-1364.

SKI EQUIP.: Yamaha hi-flex fbgls. skis, 195 cm w/Tyrolia Clix 55/Rocket 50 step-in bindings & metal poles, used one season, $45. CH 9-1019.

SKIS: Head std., 180 cm, Cupko bindings & size 6 lady's lace boots, $70. 724-2465, after 6 p.m.

SKI BOOTS: Lady's double lace, size 9 m, "used by a little old lady on Sun.," $25. 661-3471.

ROLLER SKATES: 2 pr., girl's rink, w/toe stops, size 5, $10/pr. 581-0176.

FIXTURE: Din. rm. light, chain susp., 4-way switch, 5-60 w receptacles, 9 mos., $12. 543-2423.

PIANO: Betsy Ross spinet, 58x44, mahog., bench inc., needs tuning, ask. $150. IV 5-8382.

For Sale

ANTIQUES: Wind-up, stand. Victrola & records, collector's items. Mary, 669-7875, evgs.

PUPPIES: German shep., AKC, lrg. boned, import, champ bred, sire & dam w/obedience titles, pup shots, fully guaran. 732-3552.

BOOT: For '64 Chevelle conv., black. 799-5182.

BOAT: 14' Starcraft alum. Seafarer, 18 hp Evinrude, Tee Nee tilt trail., all access., all '72 under warr., $775. 589-3389.

BOAT: 27' Sportfisherman, 1959 Ulrichsen, flybridge, new '71 Chrysler 225 hp f.w.c., outriggers, fight. chair, fishwell, radio ss, depth finder, dinette, 80 gal, fuel tank '71, sleeps 4, extras, $5,000. 587-3877.

OTBD.: '65 Mercury, elec. start, 4 cyl., 65 hp, new prop., water pump, winter. $375. MO 5-5642.

OUTBD.: '71 Mercury, 40 hp, man. start., remote controls, 2 & 6 gal. tanks, $425. CH 9-4087.

RIMS: 2 14 in. Rambler, best offer. 212 CY 8-7332.

TIRES: Uniroyal Winter Guard snows, 8.25x15 on 5 lug wheels; slightly used; $20 for one, $35 for two. 781-8925.

RIMS: Three 5.5x13, $10. 941-4247.

TBL.: Din. rm. extagon oak, ext. leaf, 4 capt. chrs. 878-4414.

WASH. & DRY.: Maytag port., suit. apt., no spec. hook-ups req., 1 year, $225. 281-6642 after 5 p.m.

CHAIRS: 4 wood. kitch., $20. 588-6364.

AIR COND.: Hot Point, new, must sell, $115. 475-5093.

BED: Double w/full hdbd., dresser w/mirr., new box spr. & matt., nds. paint., $50. 581-6124.

DIN. RM. SET: Danish mod., 9 lg. pieces, $275. JU 7-0937.

GIRL'S BEDRM: 4 pcs. white (Prov.) indiv. or mating units, 48 in. dress. tbl., 32 in. bach. chest, corn. desk, record or bk. cabinet, scuff resist., $100. AN 1-0513.

MGB: '69 conv. sport. new radial tires, exhaust, shocks, fuel pump, AM/FM radio, rear spkrs., wire wheels. 868-5391, evgs.

FORD: '63, 289 V8, auto. trans. 981-7818.

PLYMOUTH: '69 Fury 3, fac. air cond., pwr. steer., 4-dr. 475-0242.

CASSETTE: Car stereo player, $30. 543-5786.

AMBASSADOR: '70, 4-dr., pwr. steer & bks., air cond., new shocks, 37,000 mi., ask. $1,300. 277-9293.

SKI BOOTS: Man's, size 8½, 1972 Nardic, used once, $25. VA 5-4595.

FURN.: Mahog. leather step tbl., 2 velvet occasional chrs., $25/ea. 433-4741.

PROPERTY: Vermont, Mt. Snow, Stratton ski area, 1 acre in 4 seasons rec. develop., ask. $6,500. 928-1179.

MIRROR: Wall, 3x5 ft., Pittsburgh plate glass, bev. edges, $20. SU 5-5335.

HOUSE: Farmingville, 4 bdrm., L shape ranch, no bsmt., 2 baths, s/s, lndscpd. ¼ acre, att. gar., wash., dry., OHW bsbd., $28,500. 732-8733, mornings.

PONTIAC: '63 Tempest, 4-cyl., nds. work or use for parts, $100. LV 1-3959, after 5 p.m.

FORD: '56 Galaxie conv., orig. owner, snows & rims, low mi., ask. $475. 941-4378, after 6 p.m.

OPEL: '68, new tires, bks., & muffler, needs clutch, $395. 277-0443.

HOUSE: Colonial, 3 bdrm., 1½ bath, 2½ car gar., w/indep. heat, $35,000. 271-1273.

BUNGALOW: Nr. Liberty, N. Y., all util., 2 bdrm., scr. porch, pvt. lake. PY 6-3887, after 5:30 p.m.

RANCH: Port Jeff. Sta., 4 bdrm., 1½ bath, formal din. rm., fin. bsmt., appli., above ground pool, conv. to Grumman, schools, shop., ch., $28,000 firm. 473-0948.

PONTIAC. Firebird Esprit, auto., pwr. steer & bks., tape deck, stereo radio, bronze w/wh. int., $2,450. 585-8223, 6-9 p.m.

PONTIAC: '72 Grandeville, 4-dr. hdtp., dk. blue w/blk. vinyl roof, comp. pwr., air cond., 12,000 mi., $3,995. 764-1571, after 6 p.m.

TIRES: Snows, two 8.00/8.20x15, Gen. Nygen, one mount. on rim, $10. JU 7-2379.

TABLE: Draft., 60x38 in. 732-0047.

MISC.: Snow throw. attach., for Internat. Cub Cadet tractors or equiv.; two 6.85x15 Firestone snows & Peugot rims. AN 6-6739.

HOUSE: Centr. Islip, 3 bdrm. ranch, att. gar., all appli., incl. dishwash., s/s, w-w in panld. liv. rm., redwood deck w/built-in brick barbecue, lrg. cement patio, full fin. bsmt., int. newly paint., lidscpd, ¼ acre, xtras, $27,500. 234-8964, evgs.

BICYCLES: Girl's, two 20 in., $25/ea. MO 5-5995.

For Sale

APPLI.: Stove, Norge deluxe, gas, 4 burn., clock, oven timer, $25; dryer, elec. wh., $25. 862-8284.

COLOR TV: Philco, 26 in., stereo AM/FM phono home entertain. center, 5 yrs., mahog. cab., needs new pic tube. ask. $450. 379-6576.

HOUSE: N. Babylon, wide-line, hi-ranch, 4 bdrm., 2 full bath, lrg. playrm., fenced 100x100, gar., $39,500. 587-2775, after 5 p.m.

FORD: '65 Galaxie 500 XL conv., 352 V8, pwr. steer, auto., tint. glass, eng. & trans. good, new exh. sys., 2 snows on extra wheels, shop man., ask. $400. 586-8130.

JEEP: '64 Wagoneer, plow, Warn. hubs, new trans., clutch, fuel pump, muffler, rubber clean, ask. $1,400. 427-6580.

OLDS: '66 Jetstar 88, air, radio, heater, pwr. bks., auto., $275. PY 8-6338.

BICYCLES: Schwinn 26 in., mans/boy's 3-spd. racer, red, coaster & front hand bks., $35; girl's 24 in. single speed, blue, USA, $15; small boy/girl conv. w/train. wheels, solid rubber tires, red, USA, $15. 928-1711.

BICYCLE: Columbia, 20 in w/speedom., sissy bar, banana seat w/hi-rise back & lock chain, almost new, green, $45. MY 4-5919.

PROJECTOR: Slide, Revere 888D, auto. w/remote, 2 tray cases, 30 slide trays, capacity of 1080 slides, $25. ED 4-7182, after 6 p.m.

BDRM. SET: 5 pc., Hollywood beds, drapes, rug, bedspread; 5 pc- dinette set, all $150. 698-1071, evgs.

NOZZLES: Used & old, gasoline service sta. type. 621-6989, after 5 p.m.

SNOWS: Two w/studs, used 2,000 mi., C 78-13 (6.50-13 or 7.00-13), Toyota Corona, Pinto, Vega, or Valiant, $35. 584-5053.

CHAIR: Barrel back tapestry, $25; drum table, $15. 931-5229.

TOOL BOX: Carpenter's, complete w/saws, hammers, ruler, etc., $35. CH 9-4854.

JEEP: '55 sta. wag., 4 w.d. 864-3134.

HOUSE: Laurelton, Queens, 2 story, 3 bdrm., 1½ bath, liv. rm., din. rm., eat-in-kit., porch, bsmt., gar., nr. school & shop. 212-978-2898.

HOUSE: Farmingdale Tudor, ¾ bdrm., gar., w-w, s/s, firepl., formal din. rm. fam. rm., new kit., bsmt., wash. & dry., stove, refrig., $37,500. 293-7815.

HOUSE: 2 story Dutch barn, 1½ bath, 3 bdrm., full bsmt., fence, 1/3 acre, beach & dockage rights, $29,500. 878-4414.

HOUSE: Levittown ranch, 4 bdrm., 1½ bath, gar., air cond., all appli., garden tools, immed. occup., $29,250. 731-3287, evgs.

BUNGALOW: Ferndale, N. Y., furn., full kit. & bath, can be winterized, all util. PY 6-3887, after 5:30 p.m.

PROPERTY: 50x150, Davis Ave., Uniondale; wheels, 14 in. rims, fit Javelin, Amer. Motors. IV 5-3072, after 5 p.m.

MISC.: French Prov., walnut fin. tbl., 29x53x29; Frigidaire refrig. w/mini. freeezr, 14 ft., self defrost; Bradford refrig; baby carirage, coach type. HT 4-2253.

MISC.: Gas stove, 30 in., $25; business typewriter, $25; Sears port. snowblower, $50; Mastercraft sabre saw, $10; '62 Chevy wheels, 14 in., snows, $10. WE 5-0885, after 6 p.m.

plane GRUMMAN news

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Plane News from outside line: LR 5-3293

United Fund — if you don't do it, it won't get done

How about remembering the United Fund of Long Island right now, today, while there's still time before the prize drawing? All you need is a kind heart and a ball-point pen. If your interest in the Long Island Fund is real, you'll perhaps feel like signing up for the payroll deduction plan. That way, you'll be giving regularly to the 96 non-profit agencies and hospitals that are helped by the Fund.

"UFLI has not yet come close to collecting the funds on Long Island that are needed," fund chairman John Dyer says. "How many people will die as a result of inadequate care and attention from United Fund charities? The United Fund giving in Milwaukee is $7.70 per capita, and in New Haven, $7.40. The United Fund is getting $1.16 per capita on Long Island."

Now if you find "Fair Share" giving impossible, but you do want to help, sign up for SOME amount to swell the 1972 total. You've lost the card that came to you with your paycheck? Ask your ESO representative for another.

Cash will do . . .

And if the payroll way doesn't suit you, think of your donation as a holiday gift going to thousands of kids, or maybe just to one. Write a check. Peel off a $10 or $20 bill, or whatever you can spare. Get a receipt for your tax-deductible gift. And when the prize drawing takes place in the near future, you will have, as a Fair Sharer, a crack at 12 fine prizes. As a regular contributor, (but less than the Fair Share), your ticket stub will have a chance at four prizes, all major appliances.

People helping people

If you think of United Fund in terms of people helping people, consider some of its beneficiaries: the heart cases, cancer patients, hard-of-hearing and brain-damaged children. What about drug abuse? The Family Service Association of Mineola and the Jewish Community Services in Rego Park are doing something constructive. Expert case workers and case aides from these agencies branch out daily to counsel on drugs. "Working closely with the case worker," says Mrs. Mildred Heller, program director at Jewish Community Services, "are 10 case aides whose task is to locate those youngsters in the streets, community centers, parks, and schools, who are in need of help but do not know where to get that help.

"It is alarming," says Mrs. Heller, "to find many youngsters on drugs as young as 13 years of age."

Mrs. Hermine Davis, district supervisor of JCS, adds: "Approximately 150 youngsters on drugs have been serviced by Jewish Community Services and have either lessened their drug intake or have returned to school."

In United Fund's directory service you'll find phone numbers for these centers listed under Counseling.

People helping people — keep the United Fund of Long Island doing just that. If everybody helps, the services can continue. Without adequate financial help—what? The Fund needs $4 million. Won't you give a hand?

Prize list

1. Sylvania 25-inch color console TV with 90-day free service & 1-year contract on parts
2. Fisher 120-watt amplifier with Garrard turntable and one pair Superdynamic speakers
3. G.E. 25-inch color console TV with service and parts contract
4. RCA 23-inch color console TV with service and parts contract
5. Sylvania stereo console AM-FM
6. G.E. 18 cubic foot frost-free refrigerator
7. G.E. upright freezer
8. G.E. 30-inch electric range
9. G.E. 23-inch black & white table model TV with stand
10. Westinghouse automatic clothes dryer
11. G.E. portable dishwasher
12. G.E. 16-inch black & white TV with stand

Skills for a tot. Your contributions to the United Fund bring help to children in day care centers for mothers who must work. (Photo by Harry Prodromides)

Still plenty of bargains—including canoes—at ESO

You don't hardly have to set your foot inside Macy's this Christmas season. Want something big and beautiful? Buy a Grumman canoe at a substantial discount. All sizes are on display at Plant 3. Your ESO representative can tell you where to find them. They're called "factory seconds" from Grumman Allied's Marathon plant and all are in new condition, says Gus D'Errico.

That's not all that you can buy from ESO. The Flight Shops have a glittering assemblage of name brand candies and cookies, tree treats, wallets, tote bags for men and for women, mini tote bags, Grumman jewelry, model kits, Apollo patches (hey, Dad, that's an idea for your space-minded son). Included in the model kits is the F-14.

To give you an idea on boat prices, the sport canoe, which usually sells for $449, not including transportation and sales tax, is quoted at $295, and that includes transportation and tax. Other boats show reduced prices, too. The boats have been moved from Plant 2 to Plant 3.

Sales saga. Bob Dunlop of Machining Operations - Parts Control, Plant 3, decided to buy a canoe for his son Bob. Then he bought some more—seven in various sizes, for the Babylon Rod & Gun Club, of which he is a member. Lennie Ambrosino of ESO handles the sale. ESO reports that the canoe business has been thriving, with more than 300 sold since September. (Photo by Fred Annette)

Time out . . .

On October 1, the VAQ-131 Lancers took time out from their busy schedule of preparing for Southeast Asia operations to celebrate their first anniversary of flying the Grumman EA-6B Prowler. The ceremony was held on the hangar deck of the USS Enterprise, which was operating off the coast of the Philippines at the time.

As part of the ceremony, Cdr. Joe Frick, Commander Attack Carrier Air Wing 14, was presented with a model of the Prowler, complete with VAQ-131 markings, by Grumman Field Service reps Bob Stafford, Mike Fields, and Ed Munoz. Helping with the presentation were the Lancer skipper, Cdr. Jim Harmon, and Lancer executive officer, Cdr. Lucio DiLoreto.

Frick is no stranger to Grumman aircraft. He had commanded an Intruder squadron based at Oceana, Virginia, and has flown the Prowler a number of times.

GDS post

Joe DiGiacomo has been appointed director of Accounting for Grumman Data Systems Corporation.

His responsibilities include preparation of all financial statements of the corporation; issuance and implementation of all accounting policies and practices; maintenance of all accounting systems and costing records; establishment and standardization of financial policies between the corporation and its subsidiaries.